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LISTing Policy ..... Annual Dues \$16.00

# LISTings

Newsletter of the Long Island Sinclair / Timex Users' Group

15 YEARS AND STILL GOING STRONG!

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to: L.I.S.T.

Mr. Robert Gilder  
69 Jefferson Place  
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COMING EVENTS: The next L.I.S.T.  
meeting will be Sunday, 1/11, 98.  
at 2 P.M. at the home of Bob  
Gilder, 69 Jefferson Place,  
Massapequa, New York 11758  
Tel: 516-541-2271

NEXT MEETING: JANUARY 11, 1998

*On a sample copy sent upon receipt of business size SASE. Copies provided on Exchange basis with other Bona fide user groups. We are always looking for articles, programs, reviews, etc to keep members informed and entertained. You maintain full credit and copyright.*

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All of a sudden, I have realized that I have been working exclusively with text for at least four years and I have not programmed anything at all. I am currently writing an article for QLtoday and I've decided that I need a little rest. Within this article I have two menus which are in my BOOT disk: One has 3 different printer drivers and the other is two different HELP files for The Editor. The main ingredients are two procedures, SElect ON and END SElect. The following documentation will help understanding both procedures.

#### SElect ON

SElect is an alternative form of decision making. It is used when it is required to make one choice from a list of possibilities. This is done by testing the value of a variable by a series of ON statements, each of which may be followed by a series of program lines. When the test following an ON is true, all the statements between it and the next ON line are executed.

A SElect structure is started with a SElect ON variable\_name statement, and concluded with an END SElect statement.

The ON statements allow the variable to be tested for equality to a value, or for a range of values, using the familiar TO notation (i.e. ON rest\_of\_file=30 TO 50). Other tests, such as not equal, greater than, less than, etc. are not acceptable. There is also an ON REMAINDER statement, which will execute a series of statements if no other ON conditions have been satisfied. This can be thought of as the equivalent of ELSE in IF ... THEN structure.

The following listing is a guess-the-number game which uses a large number of conditional statements. A random number is generated, and you get a clue as to the size. You then have to enter guesses, and the computer tells you how you are doing.

Lines 130 and 140 set the windows. Here we are creating 2 windows of our own. The channel 3 window is for output only, so we use the scr\_device name. The channel 4 window is for input and output so it is a console device. The extra parameter at the end sets the size of a buffer to hold the characters typed ahead.

The random number is selected by a loop (lines 270 to 300) which repeatedly selects random numbers until a key is pressed. This is a good way of producing a truly random value. Lines 310 to 390 provide the clues. An IF ... THEN statement is used first for low values, followed by a SElect structure testing for ranges of intermediate values, and then another IF ... THEN statement for the high values.

The main part of the game is between lines 410 and 570. Input of a guess is invited. If this is out of range, a suitable message is printed, and a NEXT statement is used (here in a REPEAT loop) to go back for another entry. The difference between the guess and the random number is calculated, and this is then tested in a similar way to the original random number to tell you how you are doing.

The variable diff is compared to a variable old\_diff, and by this means you are told if your new guess is less accurate than the last.

At line 450, if you enter the correct number, the program branches out of the loop to line 580, prints CORRECT!!! and invites you to have

another go. If you decline, lines 660 to the end reset the computer.  
Note that these lines reset for use with a monitor. END.

```
110 REMark Guess-the-Number Game *
120 MODE 256
130 OPEN#3,scr_512x100a0x0
140 OPEN#4,con_512x100a0x100_8
150 BORDER#3,16,5:BORDER#4,16,5
160 CLOSE#1: CLOSE#2
170 INK#3,1: PAPER#3,7
180 INK#4,7: PAPER#4,1
190 CLS#3: CLS#4
200 CSIZE#3,2,0: CSIZE#4,2,0
210 LET tries=1: old_diff=5000
220 REMark ** main program starts **
230 REPEAT games
240   CLS#3
250   PRINT#3, 'I am thinking of a number (1 to 5000)'
260   PRINT#3, '(Press a key )'
270   REPEAT setnumber
280     number=RND(1 TO 5000)
290     IF INKEY$(#4,20)<>" " THEN EXIT setnumber
300   END REPEAT setnumber
310   PRINT #3, 'Here is a clue ...'
320   PRINT #3, 'It could be ';
330   IF number<100 THEN PRINT#3, '! someones age. '
340   SELECT ON number
350     ON number = 100 TO 400: PRINT#3, '! a cricket score. '
360     ON number = 401 TO 1000: PRINT#3, '! the pages in a book '
370     ON number = 1001 TO 3000: PRINT#3, '! the size of a car engine '
380   END SELECT
390   IF number>3000 THEN PRINT#3, '! a telephone number '
400   PRINT#4, 'Try no. '; tries
410   REPEAT guesses
420     INPUT#4, 'Your guess? ' ; guess%
430     IF guess%<1 OR guess%>5000 THEN PRINT#4, 'SILLY!!!': NEXT guesses
440     diff=ABS(number-guess%)
450     IF diff=0 THEN EXIT guesses
460     IF number<guess% THEN PRINT#4, 'Too big';
470     IF number>guess% THEN PRINT#4, 'Too small ';
480     IF diff<10 THEN PRINT#4; "but you are very close"
490     SELECT ON diff
500       ON diff=10 TO 50: PRINT#4; "but you are quite close"
510       ON diff=51 TO 200: PRINT#4; '.'
520     END SELECT
530     IF diff>200 THEN PRINT#4; 'by a long chalk!'
540     IF diff>old_diff THEN PRINT#4; 'You are further out than last time!'
550     tries=tries+1: old_diff=diff
560     PRINT#4; 'Last guess '; guess%
570   END REPEAT guesses
580   CLS#3
590   FOR lines=1 TO 5
600     PRINT#3; 'CORRECT!!!'
610   END FOR lines
620   CLS#4
630   PRINT#4; 'Another go?'
640   IF INKEY$(-1)<>'y' THEN EXIT games
650   END REPEAT games
660   CLOSE#3: CLOSE#4
670   OPEN#1,con_256x200a256x0_255: INK#1,7:PAPER#1,2
```

680 OPEN#2,scr\_256x200a0x0: INK#2,2: INK#2,2: PAPER#2,7  
690 MODE 512  
700 CLEAR: STOP

# PRINTER DRIVER MENU (used with Taskmaster)

```
451 INPUT #0;"Select a PRINTER DRIVER; Load The EDITOR; or BASIC?  
(P/E/B) ";A$  
452 IF A$="e" OR A$="E" THEN GO TO 660  
453 IF A$="p" OR A$="P" THEN GO TO 455  
454 IF A$="b" OR A$="B" THEN GO TO 680  
455 CLS: PRINT "\\\"Select printer driver"  
456 PRINT " 1 - ITOH 8510A PRINTER DRIVER"  
457 PRINT " 2 - PANASONIC KXP1124 PRINTER DRIVER"  
458 PRINT " 3 - EPSON LQ-2500 PRINTER DRIVER"  
459 INPUT #0;"Your choice? "; pr  
460 DELETE flp1_printer_dat  
461 SElect ON pr  
462 =1: COPY flp1_ITOHpr_dat TO flp1_printer_dat  
463 =2: COPY flp1_PANpr_dat TO flp1_printer_dat  
464 =3: COPY flp1_EPLQpr_dat TO flp1_printer_dat  
465 END SElect  
660 LRUN flp1_BOOT_edt  
670 LRUN FLP1_PIP_boot  
680 STOP
```

Two HELP files for the EDITOR SE

```
455 CLS: PRINT "\\\"Select EDT_HELP_file menu"  
456 PRINT " 1 - EDT1_help"  
457 PRINT " 2 - EDT2_help"  
458 PRINT " 3 - Non_available"  
459 INPUT #0;"Your choice? "; pr  
460 DELETE flp1_EDT_help  
461 SElect ON pr  
462 =1: COPY flp1_EDT1_help TO flp1_EDT_help  
463 =2: COPY flp1_EDT2_help TO flp1_EDT_help  
464 =3: COPY flp1_EDT3_help TO flp1_N/A  
465 END SElect
```

This is another short program using SELECT ON and END SELECT

```
1 REMark *** Ski holiday tariffs ***  
5 CLS  
100 PRINT "Ski Holiday tariffs"  
110 PRINT "Enter 1...for Westernndorf"  
120 PRINT "      2...for Adelboden"  
130 PRINT "      3...for La Plagne"  
140 PRINT "      4...for Verbier\\"  
150 INPUT "your selection"!n  
160 SElect ON n  
170 ON n=1  
180 PRINT "High-season $250.00"  
190 PRINT "Low-season  $195.00"  
200 ON n=2  
210 PRINT "High-season $320; low $286"  
220 ON n=3  
230 PRINT "Special terms $200 self-cater"  
240 ON n=4  
250 PRINT "Dec, Jan $312;Feb,MAR $324"  
260 ON n=REMAINDER  
270 PRINT "Incorrect number entry"  
280 END SElect
```



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Massapequa, NY 11758

Dear Mr. Gilder,

Thanks for the schematics, they really helped. Thanks for the advice on the TI99 keyboard. I'll look around for one, I think I'll start calling some of the places that still support Timex/Sinclair stuff and see what I can find. I just received the October LISTings, almost makes me wish I had a QL.

One of the things I use my TS1000 for is to help me in my collage math. I can create basic programs to handle just about any equation and it is much faster than a PC.

While roaming internet I found a listserv that is dedicated to the TS1000 I am enclosing an information letter about it, you may want to post it in LISTings.

In the October LISTings you ask "Who's Online?" I use a PC clone, 28.8 modem, Fresno State University ISP. My email address is krh03@cvip.fresno.com. Feel free to post my email address in LISTings I'm far from an expert but I would help anyone with a Timex/Sinclair problem.

Once again Thanks for the help.



Ken:

Thanks for the ZX81 information letter, consisting pf 3 pages. I have decided to post your letter and the additional information from Jack Raats. I am sure that our ZX81/TS1000 will find it interesting.

As for a TI99 keyboard, I may have one around. Just give me a little time to find it and then I will post it in the mail for you.

Thanks again for the following information,

Bob Gilder

The ZX81 information letter

June 1997

=====

Hello everyone and welcome to this ZX81 information letter.  
First of all I greet all newcomers who just connected to this ZX81 mailinglist and wish you a happy stay with all of us ZX81 enthusiasts. Jack Raats the initiator and moderator of this list asked me to make some kind of reference list to which each one here can refer, to get questions answered and find general information about the ZX81 and the emulators so this is kind of a ZX81 faq list even though there are not many questions asked here yet :-)  
This list will be posted on a regular basis and I would therefore be very grateful if readers here could mail me if any information in this list is not correct and needs changing or if you have and new information to add to this list, my email address is: martin@jarasoft.xs4all.nl or you can also write comments here.

Q So what is this ZX81 Mailinglist all about?

A This list was initiated and established by jack Raats with the idea in mind that ZX81 users all over the world could have a forum to which they can be connected with all other ZX81 lovers all over the world. This way users can stay in touch and can be assured that when they ask a question or write about a new development they just made will be send to all those connected, many ZX81 hard/software experts are connected to this list.

Q But I don't have a ZX81?

A There are ZX81 emulators for different platforms and there are also ZX81's being sold and hardware for it and sometimes someone sells a ZX81 in the newsgroup comp.sys.sinclair, for example there is the homepage by Zebra who sells ZX81's as computer kit's:  
<http://www.users.interport.net/~zebra/ts/>  
And you can also buy ZX81 hardware at:  
RMG Enterprices 14784 S Quail Grove Cir  
Oregon City OR 97045  
503 655-7484 (10Am-7Pm Tue-Sat)  
Fax 503 655-4116

You could also get in touch with the German ZX Team Members, they make a magazine (German) and have a hardware supplier for the ZX81, their site is: <http://home.t-online.de/home/p.liebert/connecti.htm>

Q Is there a good ZX81 emulator for the PC?

A Yes a very good one, it's called Xtender, you can get the latest version at: <ftp://ftp.nvg.unit.no/pub/sinclair/utills/pc/xtndr116.zip>

Q Is this emulator still supported and can I register it?

A It sure is, currently it is at version 1.56 but not available yet, it is in testing phase and needs to be further developed and being made user friendly, for registration of Xtender 1.16 read xtender.txt inside package.

Q But I have a Atari?

A The are many ZX81 emulators for different computers and operating systems check out: ftp.nvg.unit.no/pub/sinclair or these WWW sites from which you can also download ZX81 emulators:

<http://www.freeflight.com/fms/comp/>  
<http://www.uruk.org/~erich/emu/main.html>

Q Are there any ZX81 programs on the Internet?

A Yes many, they are on ftp sites but can also be downloaded from webpages:

<ftp://ftp.nvg.unit.no/pub/sinclair/zx81/utlis>  
<ftp://ftp.nvg.unit.no/pub/sinclair/zx81/snaps/packs>  
<ftp://ftp.nvg.unit.no/pub/sinclair/zx81/snaps>  
<http://edge.edge.net/~krbaker/zx81.html>

Q Are there any ZX81 email magazines?

A yes there is my ZX81 magazine at:  
<ftp://ftp.nvg.unit.no/pub/sinclair/zx81/mags/>

Q I have a original ZX81, can I still use those snaps from pub sinclair?

A Congratulations, yes you can, Wilf Rigger (also connected to this list) has written a very simple and effective (no hardware needed, just a wire) PC to ZX81 transfer program that load's snap's into you're ZX81.

This program can be found on:

<ftp://ftp.nvg.unit.no/pub/sinclair/utlis/pc/zxtape.zip>  
<ftp://ftp.nvg.unit.no/pub/sinclair/utlis/pc/zxtape.txt>

Q But I don't have direct internet access, can I still get websites and programs?

A Yes you can, I also surf the net and get files from ftp sites.

This is how you get a program from a ftp site:

To: [ftpmail@sunsite.doc.ic.ac.uk](mailto:ftpmail@sunsite.doc.ic.ac.uk)  
Subject:

---

```
open ftp.nvg.unit.no
cd /pub/sinclair/utlis/pc
size 500k
uuencode
get zxtape.zip
```

quit

This is how get WWW pages, (including programs on them) you can get several pages in one message, just leave a blank line inbetween:

To: getweb@usa.healthnet.org  
Subject:

-----  
get <http://easyweb.easynet.co.uk/%7Estevemcd/zx81.htm>

Q Are there any ZX81 Homepages?

A Yes many, for example try these:

<http://edge.edge.net/~krbaker/zx81.html>  
[http://www.maths.nott.ac.uk/personal/cpg/zx81/index\\_old.html](http://www.maths.nott.ac.uk/personal/cpg/zx81/index_old.html)  
<http://www.hh.schule.de/hhs/mjaap/zx81.htm>  
<http://www.csv.warwick.ac.uk/~mauqx/>  
<http://www.gre.ac.uk/~bm10/zx81.html>  
<http://home.t-online.de/home/p.liebert/zx-team.htm>  
<http://easyweb.easynet.co.uk/~stevemcd/zx81.htm>  
<http://edge.edge.net/~krbaker/zx81.html>  
<http://www.nvg.unit.no/sinclair/zx81-contents.html>  
<http://www.netbound.com/jeffg/text/amigavzx>

Q Is it possible to search the Internet for a ZX81 related site by using only email?

A Yes you can, do this:

To: getweb@usa.healthnet.org  
Subject:

-----  
<http://webcrawler.com/cgi-bin/WebQuery?ZX81>

-----  
\*\*\*\*\*  
\* via JaRaSoft BBS, Steenbergen, The Netherlands The internet gate! \*  
\* FidoNet 2:285/751 - ElectroNet 182:100/106 - +31-167-540014 V32B/FAX \*  
\* Standard disclaimer: The views of this user are strictly his/her own. \*  
\*\*\*\*\*

# Basic Statistics Program

By Imre Auersbacher

The topic this month is mathematics. In particular, the program listed below performs basic statistical analysis for ungrouped data. Statistics, as you all know, is the collection and study of numerical facts or data and their interpretation in mathematical terms. Whether you are analyzing the results of a laboratory experiment or just examining student test scores, the following program should be quite useful.

To use this statistic program, just enter all of your data values. The computer will handle any number of data points, whether you have just two or even 10,000 of them. After feeding in all the data, enter the letter "S" or "Q" (for stop or quit). The computer will then output the following statistical parameters:

- 1) the number of data points,
- 2) the minimum data value,
- 3) the maximum value,
- 4) the sum of all values,
- 5) the arithmetic mean or average,
- 6) the sum of the squares,
- 7) the variance,
- 8) the standard deviation, and
- 9) the variation coefficient.

The first several quantities are simple and self-explanatory. The variance, standard deviation, and variation coefficient are basically measures of the scatter of data about their mean value.

A sample program is given below.

```

2 REM Basic STATISTICS 2068
4 REM By I. Auersbacher 1985
10 ON ERR GO TO 900: LET ss=0:
LET sum=0: LET s=-987.1234: LET
q=s LET n=0: BEEP 0.05,20
12 BORDER 5: POKE 23609,10
14 PRINT PAPER 6: "Basic Stati
stics Package 2068 ": PRINT
16 PRINT "Enter Data points:"
18 PRINT : PRINT "x=":
20 INPUT x: IF x=s THEN BEEP 0
.5,-15: BEEP 0.6,-20: GO TO 20
22 PRINT x: LET max=x: LET mi
n=x: GO SUB 50
25 PRINT "x=": INPUT x: IF x=
s THEN PRINT "S": GO TO 100
30 PRINT x: GO SUB 50
35 GO TO 25
50 IF x>max THEN LET max=x
55 IF x<min THEN LET min=x
60 LET sum=sum+x: LET ss=ss+x*
x: LET n=n+1: RETURN
100 LET ave=sum/n
110 LET var=(ss-(sum*sum)/n)/n
120 LET std=SQR (var*n/(n-1))
130 LET vc=std/ave: BEEP .1,22
200 CLS: PRINT PAPER 6:AT 1,2:
"## Solution ##": PRINT
210 PRINT "Number/points: ";n
220 PRINT "Minimum value: ";min
230 PRINT "Maximum value: ";max
240 PRINT "Sum of values: ";sum
250 PRINT "Average value: ";ave
260 PRINT "Sum / squares: ";ss
270 PRINT "Variance: ";var
280 PRINT "Std Deviation: ";std
290 PRINT "V Coefficient: ";vc
300 PRINT : PRINT : PRINT TAB 1
PAPER 6:"## End Solution ##"
310 ON ERR RESET: STOP: STOP
900 ON ERR RESET
910 BEEP 0.5,-15: BEEP 0.6,-20
920 ON ERR GO TO 900
930 ON ERR CONTINUE

```

Basic Statistics Package 2068

Enter Data points:

x=102.76	x=110.77
x=99.76	x=101.88
x=100	x=113.45
x=97.55	x=115.11
x=103.33	x=109.99
x=99.99	x=107.10
x=112	x=stop

## Solution ##

Number/points:	13
Minimum value:	97.55
Maximum value:	115.11
Sum of values:	1373.72
Average value:	105.67077
Sum / squares:	145592.15
Variance:	33.084346
Std Deviation:	5.9867666
V Coefficient:	.056654898

## End Solution ##

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Robert Gilder  
69 Jefferson Place,  
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412 Pacific Street,  
Massapequa Park, NY 11762

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USA postage \$16.00

CANADA and MEXICO \$17.50 US, and the rest of the world \$24.00 US.

Bob Malloy, LIST Treasurer

#### WHO'S ONLINE

Some of us here at LIST have been wondering how many of our members are using modems with their Sinclair computers. It would be helpful if those of you who are into communications would take a few minutes to let us have the following info.

COMPUTER USED .....  
COMMS PRGRM .....  
BAUD RATE .....  
EMAIL ADDRESS.....  
ONLINE SERVICES USED.....  
SUGGESTIONS FOR LIST.....

You can reply to me at either of the following addresses:

74776.2342@compuserve.com

bmalloy@chelsea.ios.com (Internet)

Or, you can use our snailmail address.

Bob Malloy

#### ON LINE

Joe LaPunzina  
Bob Malloy  
Tom Skapinski  
John Pazmino  
Tim Swenson  
Bill Cable  
Mike Jonas  
Gary Norton  
Al Boehm  
Ed Kingsley  
Ken Harbit

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mjonas@bbn.com  
gnorton@world.std.com  
boehm@plh.af.mil  
elk4@aol.com  
krh03@cvip.fresno.com